

**Testimony for Connecticut State Legislature
Education Subcommittee of the Appropriations Committee**

**To support the continued funding for the Head Start-Early
Childhood Link of \$1.98 Million Dollars**

Regarding: Total Learning Initiative Funding

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Action for Bridgeport Community Development, Inc.
Total Learning Evaluation

February 11, 2009

EVALUATION OF THE IMPACT OF *TOTAL LEARNING* ON PUBLIC SCHOOL KINDERGARTENERS IN BRIDGEPORT, CT

Michael Cohen, PhD and Minda Frank, Principal Investigators
Michael Cohen Group LLC

Action for Bridgeport Community Development (ABCD), Bridgeport's community action agency, in collaboration with the Bridgeport Board of Education, Head Start, Arts Education IDEAS, Music Together, Child FIRST and the Michael Cohen Group LLC, has developed the *Total Learning Initiative* (TL), a comprehensive model of educational and social support for children birth to nine and their families. Based on research findings in social policy, education and childhood development arenas, TL is designed to address a critical educational crisis in the US — the persistent achievement gap that challenges students from impoverished and historically disadvantaged backgrounds.

Total Learning is a "whole child" approach designed to meet the needs of children and families living at or below the poverty level. At its core, TL's orientation is that classroom experiences exist in the context of the child's entire life. In order for children to learn and mature, and to close the achievement gap, the full spectrum of needs of impoverished families must be addressed.

The overall objectives of this study include:

- An evaluation of the impact of the *Total Learning Initiative* on public school kindergarteners in Bridgeport, Connecticut.
- Specifically, to evaluate the impact of *Total Learning* on student outcome performance, assessed by standardized tests, and determined by a scientific, evidenced-based control study.

This evaluation was conducted from October 2007 through May 2008, by the Michael Cohen Group LLC (MCG) — a research and evaluation team specializing in education.

The study was designed and analyzed by MCG as the principal investigator.

The Bridgeport Board of Education collaborated with MCG on data collection and compilation.

**This evaluation
provides
scientific
evidence that
Total Learning
achieves its
educational
objectives.**

RESULTS: SIGNIFICANT MAIN EFFECTS

Bridgeport public school children in kindergarten classrooms assigned to *Total Learning* (TL) made significantly greater gains in learning as determined by standardized test scores than children in classrooms that did not participate in the program.

Reading Fluency and Comprehension

- Kindergartners assigned to receive all elements of *Total Learning* showed significantly greater increases in specific emergent literacy skills (oral reading fluency, reading comprehension, reading engagement) than did children who did not participate in the program, $F(2, 478) = 3.703, p = .025$.

Developmental Reading Assessment

- More children in *Total Learning* kindergarten classrooms achieved the 4-point Developmental Reading Assessment (DRA) benchmark set by the Bridgeport Board of Education than did children who did not participate in the program.
- Significantly more children assigned to receive all elements of *Total Learning* gained 2+ points in their DRA scores from January '08 to May '08 than did children in classrooms not participating in the program.

Awareness and Understanding of Print

- Kindergartners assigned to receive all or some elements of *Total Learning* showed significantly greater gains in their awareness of print in the everyday environment and their understanding of how the concepts of printed language work than did children who did not participate in the program, $F(2, 430) = .746, p = .000$.

Concepts of Print

- Children in *Total Learning* classrooms scored significantly higher on the Time 2 Concepts of Print test than did children who did not participate in the program.

EVALUATION OF THE IMPACT OF *TOTAL LEARNING* ON PUBLIC SCHOOL KINDERGARTNERS IN BRIDGEPORT, CT

METHODOLOGY

- 551 children in 32 kindergarten classrooms in Bridgeport, CT, participated in this study.
- Classrooms were assigned to one of three treatment conditions.
- Two standardized assessments were administered to all children twice each, in a pre- and post-test research design. (See below).

TREATMENT CONDITIONS: LEVELS OF PARTICIPATION IN *TOTAL LEARNING*

- **Full treatment** — all *Total Learning* components (n = 120). In this condition, public school kindergarten classrooms received all elements of *Total Learning*: a **multi-sensory, arts-infused approach to curriculum delivery**, an **enhanced learning environment** (reduced student-to-adult classroom ratio, an extended day), **embedded professional development** for teachers, and extensive **family services and support**.
- **Partial treatment** — school-based *Total Learning* components (n = 132). In this condition, public school kindergarten classrooms received *Total Learning*'s **multi-sensory, arts-infused approach to curriculum delivery** and **embedded professional development** for teachers.
- **Control condition** — no *Total Learning* components (n = 299). In this condition, public school kindergarten classrooms received regular classroom instruction without the introduction of *Total Learning* components.

TOTAL LEARNING TEACHERS

- In interviews, teachers participating in TL expressed the belief that the *Total Learning* Initiative had a positive impact on their teaching.
- They also reported that students' engagement in the *Total Learning* classroom sessions was very high.
- Perhaps most importantly, participating teachers felt *Total Learning* had excited their students about reading.

"They have a passion for reading now!"

ELEMENTS OF THE PRE- & POST-TEST ASSESSMENT

Two standardized measures designed to assess emergent literacy skills were used in a pre-test, post-test research design.

Pre-Test

Concepts of Print (COP)

Measures child's:

- Awareness of print and literacy in the everyday environment
- Understanding of the concepts of how print and literacy are structured and function

Developmental Reading Assessment (DRA)

Measures child's:

- Reading engagement
- Oral reading fluency
- Reading comprehension

Post-Test

Concepts of Print

Developmental Reading Assessment

EVALUATION OF THE IMPACT OF *TOTAL LEARNING'S MUSIC TOGETHER* PROGRAM ON FOUR-YEAR OLDS IN BRIDGEPORT, CT, PRESCHOOLS

Michael Cohen, PhD and Minda Frank, Principal Investigators
Michael Cohen Group LLC

Action for Bridgeport Community Development (ABCD), Bridgeport's community action agency, in collaboration with the Bridgeport Board of Education, Head Start, Child FIRST, Arts Education IDEAS, Music Together, and the Michael Cohen Group LLC, has developed the *Total Learning Initiative* (TL), a comprehensive model of educational and social support for children zero to nine and their families. Based on research findings in social policy, education and childhood development arenas, TL is designed to address a critical educational crisis in the US — the persistent achievement gap that challenges students from impoverished and historically disadvantaged backgrounds.

Total Learning is a "whole child" approach designed to meet the needs of children and families living at or below the poverty level. At its core, TL's orientation is that classroom experiences exist in the context of the child's entire life. In order for children to learn and mature, and to close the achievement gap, the full spectrum of needs impoverished families must be addressed.

The overall objectives of this study include:

- An evaluation of the impact of the *Total Learning Initiative* on preschoolers in Bridgeport, Connecticut.
- Specifically, to evaluate the impact of *Total Learning's Music Together* component on preschoolers' developmental gains in problem solving, verbal fluency, self-esteem and self-confidence, and physical coordination, assessed by a standardized test, and determined by a scientific, evidenced-based control study.

This evaluation was conducted from October 2007 through May 2008, by the Michael Cohen Group LLC (MCG) — a research and evaluation team specializing in education.

The *Total Learning* study was designed and analyzed by MCG as the principal investigator.

Fairfield University collaborated on data collection and compilation.

This evaluation provides scientific evidence that *Total Learning's Music Together* achieves its educational objectives.

RESULTS: SIGNIFICANT MAIN EFFECTS

Bridgeport preschoolers in ABCD's Early Learning classrooms assigned to receive *Total Learning's Music Together* (MT) component made significantly greater developmental gains than children in classrooms that did not participate in the program.

Cognitive, Language and Physical Development

- Four year olds in classrooms assigned to receive *Total Learning's Music Together* component showed significantly greater progress in three critical developmental domains than did children in classrooms that did not participate in *Total Learning*.
- Cognitive development gains. Four year olds in *Total Learning* preschool classrooms made significantly greater gains in cognitive skills (problem solving) from October 2007 to May 2008 than did preschoolers who did not participate in the program, $p \leq .05$ ($t(471) = -2.453$, $p = .015$).
- Language development gains. Children in classrooms assigned to receive *Music Together* made significantly greater gains in language acquisition and verbal fluency from October 2007 to May 2008 than children in classrooms that did not participate in the program, $p \leq .01$ ($t(471) = -2.811$, $p = .005$).
- Physical development gains. Preschoolers in classrooms assigned to receive *Music Together* made significantly greater gains in the physical development domain (coordination) from October 2007 to May 2008 than did children in classrooms that did not participate in the program, $p \leq .05$ ($t(471) = -2.310$, $p = .021$).

RESULTS: POSITIVE TRENDS

Social-Emotional Development

- Preschoolers in classrooms assigned to receive *Music Together* also made greater gains in the Social-Emotional development domain (self-esteem, self-confidence) than did preschoolers in classrooms that did not participate ($p \leq .1$).

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EVALUATION OF THE IMPACT OF TOTAL LEARNING ON PRESCHOOLERS IN BRIDGEPORT, CT

METHODOLOGY

- 473 four year olds enrolled in 36 ABCD Early Learning classes in Bridgeport, CT, participated in this study.
- Preschool classrooms were assigned to one of two treatment conditions.
 - Children in classrooms assigned to the experimental condition (n = 86) received regular classroom instruction plus twice-weekly sessions with the Music Together program.
 - Children in classrooms assigned the control condition (n = 387) received regular classroom instruction only.
- A standardized assessment was administered to all children three times over the course of the academic year. (See below).

TOTAL LEARNING'S MUSIC TOGETHER PROGRAM

Total Learning's Music Together program is a comprehensive music education program developed for preschool children and their adult caregivers – classroom teachers, parents and guardians. Total Learning's twice-weekly Music Together preschool classes are 30-to-45 minutes long and include a flow of songs, nursery rhymes, instrumental jam sessions, finger play, and movement activities. The combination and types of activities are research-based and support children's developing competence in tonality and rhythm. Activities also include vocal play, animal sounds, rhythm play, and language play. Music Together curriculum is designed to:

- Help children to learn music in developmentally appropriate ways.
- Support cognitive, language, emotional, social, and physical development.
- Give parents enjoyable and significant ways to relate to their children.
- Engage at-risk children.
- Promote happiness and well-being in your school community.

Classes are taught by registered Music Together teachers trained in music development and skilled in leading participatory music activities. Children "bring the music home" to their parents through the program's family CD and songbook.

ELEMENTS OF THE PRE- & POST-TEST ASSESSMENT

The Creative Curriculum (3rd edition) assessment, a standardized measure designed to assess a child's progress in four developmental domains, was used in a pre-test, post-test research design.

Creative Curriculum (3rd Edition) measures development in four developmental domains:

- Social-Emotional Development
- Cognitive Development
- Language Development
- Physical Development

For each item comprising the four developmental domains, the teacher indicates how frequently a child exhibits that particular skill using a three-choice frequency scale, "not yet," "sometimes," or "often," to indicate the child's level of skill development.

PARENT SURVEY RESULTS

Results of a survey completed by parents of preschoolers in Total Learning classrooms indicate:

- Parents are highly enthusiastic about the Music Together program.
- Parents are interacting with their children in new, positive ways using the activities they learn through Music Together.
- Parents and children are more involved with music, singing and movement/dance than they were before they began the program.
- Parents agree Music Together has a positive, beneficial impact on their children and want the Total Learning preschool program to continue.

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EXPLORATORY CASE STUDIES OF THE IMPACT OF TOTAL LEARNING'S MUSIC TOGETHER PROGRAM ON EARLY LEARNERS IN BRIDGEPORT, CT,

Michael Cohen, PhD and Minda Frank, Principal Investigators
Michael Cohen Group LLC

Action for Bridgeport Community Development (ABCD), Bridgeport's community action agency, in collaboration with the Bridgeport Board of Education, Head Start, Child FIRST, Arts Education IDEAS, Music Together, and the Michael Cohen Group LLC, has developed the **Total Learning Initiative (TLI)**, a comprehensive model of educational and social support for children zero to nine and their families. Based on research findings in social policy, education and childhood development arenas, TLI is designed to address a critical educational crisis in the US — the persistent achievement gap that challenges students from impoverished and historically disadvantaged backgrounds.

Total Learning is a "whole child" approach designed to meet the needs of children and families living at or below the poverty level. At its core, TLI's orientation is that classroom experiences exist in the context of the child's entire life. In order for children to learn and mature, and to close the achievement gap, the full spectrum of needs impoverished families must be addressed.

The overall objectives of this study include:

- An assessment of the impact of the *Total Learning Initiative* on early learners in Bridgeport, Connecticut.
- Specifically, to examine the impact of *Total Learning's Music Together* parent-child classes on early learners' developmental status in communications, socialization, daily living and motor skills after participation in the program, as assessed by a standardized test, in exploratory case studies.*

This exploratory research was conducted from October 2007 through May 2008, by the Michael Cohen Group LLC (MCG) — a research and evaluation team specializing in education. The *Total Learning* study was designed and analyzed by MCG as the principal investigator.

*It should be noted that enrollment in *Total Learning's Music Together* parent-child classes was accepted on a rolling basis across the academic year. In addition, attrition rates were high, given the nature of the population. As such standardized Time-One, Time-Two measures were not attainable.

Outcomes reported here represent the children's developmental status after varying periods of participation in *Music Together*.

Some parents and children participated for as few as six to ten weeks; others stayed with the program throughout the school year.

RESULTS: TOTAL LEARNING BENEFITS EARLY LEARNERS

Total Learning's Music Together program for parents and their young children appears to contribute significantly to children's developmental progress.

Almost all of Bridgeport early learners (ages 0 to 3) who participated in ABCD's *Total Learning's Music Together* parent-child classes ranked above national norms in key developmental domains after exposure to the program.

Two year olds

- Majority of two year olds' standardized test scores ranked at or above:
 - 60 percentile on expressive and receptive language skills
 - 68 percentile on interpersonal and coping skills

Three year olds

- Almost all three year olds' standardized test scores ranked at or above:
 - 90 percentile on expressive and receptive language skills
 - 80 percentile on interpersonal and coping skills

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EXPLORATORY CASE STUDY OF THE IMPACT OF TOTAL LEARNING'S MUSIC TOGETHER PROGRAM ON EARLY LEARNERS IN BRIDGEPORT, CT

METHODOLOGY

- 73 parents and their toddlers were enrolled in Total Learning's Music Together classes. Classes were conducted once a week for 32 weeks.
- A standardized assessment was administered to all participating children at the conclusion of the academic year. (See below).

TOTAL LEARNING'S MUSIC TOGETHER PROGRAM

Total Learning's Music Together program is a comprehensive music education program developed for early learners (ages 0 to 3) and parents and guardians. Total Learning's once-weekly Music Together early learner classes are 30-to-45 minutes long and include a flow of songs, nursery rhymes, instrumental jam sessions, finger play, and movement activities. The combination and types of activities are research-based and support children's developing competence in tonality and rhythm. Activities also include vocal play, animal sounds, rhythm play, and language play. Music Together curriculum is designed to:

- Help children to learn music in developmentally appropriate ways.
- Support cognitive, language, emotional, social, and physical development.
- Give parents enjoyable and significant ways to relate to their children.
- Engage at-risk children.
- Promote happiness and well-being in the school community.

Classes are taught by registered Music Together teachers, who are trained in music development and skilled in leading participatory music activities. Early learners and their parents or guardians also "take the music home" through the program's family CD and songbook.

Children and their parents enrolled in Total Learning's Music Together program also receive health and mental health services and support from Child FIRST as needed.

ELEMENTS OF THE ASSESSMENT

The Vineland 2 Adaptive Behavior Scales is a standardized assessment instrument.

The Vineland 2 Adaptive Behavior Scales assessment instrument measures development in four domains:

- Communication (receptive and expressive language)
- Socialization (interpersonal relationship and coping skills)
- Daily Living (personal and domestic living skills)
- Motor (fine and gross motor skills)

Child FIRST Services

Child FIRST (Child and Family Interagency Resource, Support and Training) provides health and mental health services as needed by children and their families enrolled in *Total Learning's Music Together* parent-child classes.

Child FIRST is a model program to decrease the incidence of serious emotional disturbance, developmental and learning problems, and abuse and neglect among high-risk young children in Greater Bridgeport, Connecticut. When mental health and child development problems first arise, Child FIRST works with pediatricians, teachers, and other community providers to identify, assess, and intervene with vulnerable children and their families.

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Impact of Total Learning on Toddler's Developmental Progress

Total Learning's Music together program for parents and their toddlers appears to contribute substantially to the children's developmental progress.

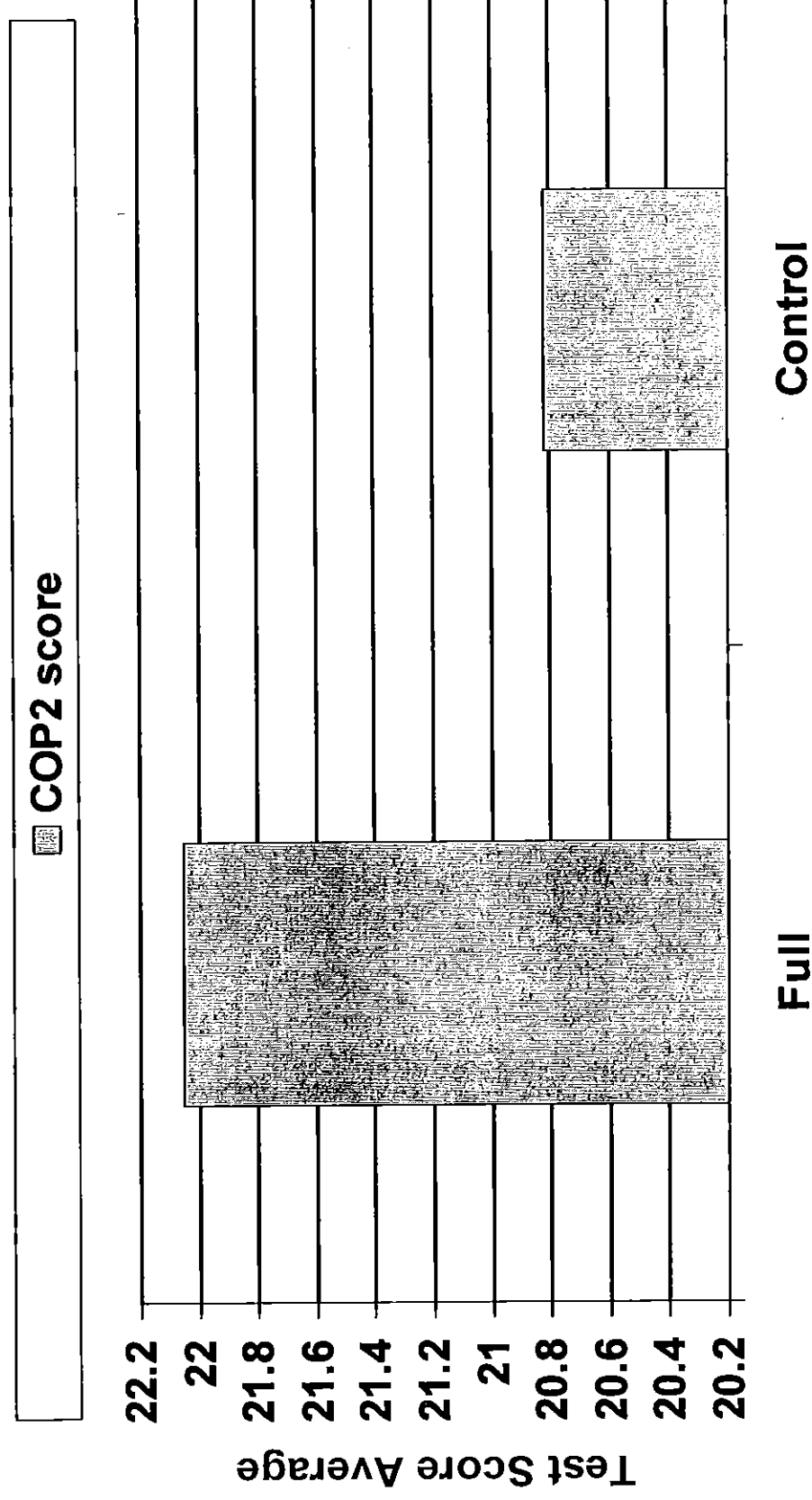
Almost all two and three year olds who participated in Total Learning ranked above National norms in key developmental domains after exposure to Music Together.

Two Year olds' scores ranked:
60th Percentile on receptive and expressive language skills
68th Percentile on Interpersonal and coping Skills
50th Percentile on fine and gross motor skills

Three Year olds' scores ranked:
90th Percentile on receptive and expressive language skills
80th Percentile on Interpersonal and coping skills
65th Percentile on fine and gross motor skills

Concepts of Print 2

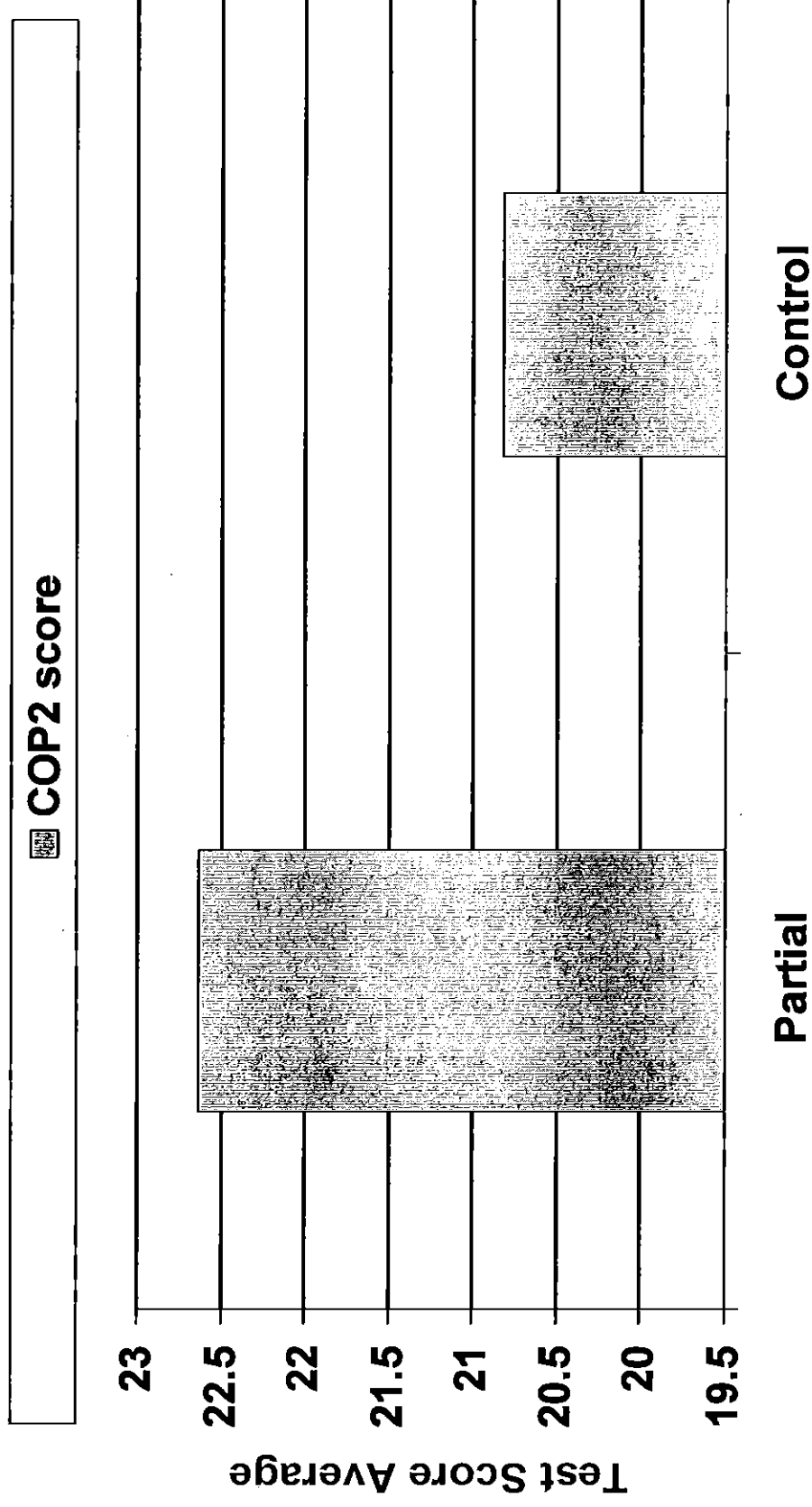
Score Averages by Condition



There is no significant difference between Full and Partial scores

Concepts of Print 2

Score Averages by Condition



There is no significant difference between Full and Partial scores

DRA Gains

Among Students with Baseline ≤ 1

